Manitoba
Energy, Science and Technology

Énergie, Sciences et Technologie
Manitoba

Annual Report 2002-2003

Rapport Annuel 2002-2003

Manitoba

104-00255/

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Rapport Annuel 2002-2003

Manitoba

MINISTER OF
ENERGY, SCIENCE AND TECHNOLOGY

Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

His Honour Peter M. Liba, C.M., O.M.
Lieutenant-Governor of Manitoba
235 Legislative Building
Winnipeg, Manitoba

May it Please Your Honour:

I am pleased to present the Annual Report for the Department of Energy, Science and Technology for the fiscal year ending March 31, 2003.

Respectfully submitted,

Tim Sale
Minister

MINISTER OF
ENERGY, SCIENCE AND TECHNOLOGY

Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

Son Honneur Peter M. Liba, C.M., O.M.
Lieutenant-gouverneur du Manitoba
Palais législatif, bureau 235
Winnipeg (Manitoba)

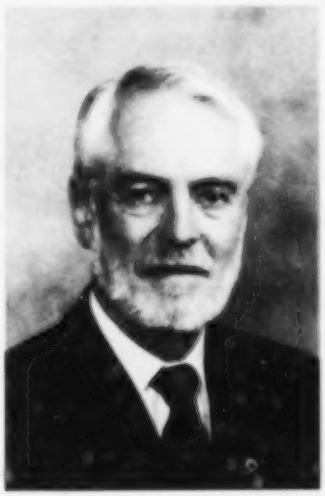
Monsieur le Lieutenant-gouverneur,

J'ai le plaisir de présenter à Votre Honneur le rapport annuel du Énergie, Sciences et Technologie our l'exercice se terminant le 31 mars 2003.

Je vous prie d'agréer, Monsieur le Lieutenant-gouverneur, l'expression de mon profond respect.

Le ministre,

Tim Sale



Manitoba

Deputy Minister of
Energy, Science and Technology

Room 343, Legislative Building
Winnipeg, MB R3C 0V8
CANADA

(204) 945-2771
(204) 948-2747 (FAX)

Honourable Tim Sale
Minister of Energy, Science and Technology
Room 314, Legislative Building
Winnipeg, MB R3C 0V8

Dear Minister:

I have the honour of presenting the Annual Report for the Department of Energy, Science and Technology for the period April 1, 2002 to March 31, 2003.

The mission of the department is to increase the innovative capacity of all Manitobans to support community development, economic growth, and diversification and provide a focus for government information technology requirements.

The department has undertaken many activities in collaboration with our partners and stakeholders. The highlights below demonstrate the efforts undertaken and achieved by the department.

- The Climate Change Branch coordinated and produced *the Province of Manitoba Climate Change Action Plan 2002* titled, *Kyoto and Beyond – A plan of action to meet and exceed Manitoba's Kyoto Targets.*
- The department produced an Ethanol strategy, which is outlined in the document, *A Report by the Ethanol Advisory Panel to the Government of Manitoba.*
- The department worked closely with Manitoba Hydro to develop a wind-monitoring program to be launched in the spring of 2004.
- The department worked closely with companies from wind energy, ethanol production, hydrogen technologies, pharmaceuticals, food processing, information technology and metal fabrication sectors, who were seriously considering Manitoba as a place to invest or partner.
- The department worked with companies pursuing ethanol plant development in Manitoba, and is developing an ethanol manufacturer's agreement.
- The Manitoba Climate Change Action Fund provided support totaling $249,998.00 for a total leveraged project value from the program of $2.3 million.
- The department has worked in partnership with Manitoba Hydro, Manitoba Conservation, NRD, IRAP, NRC and Environment Canada to develop the Power Smart Eco-Efficiency Solutions pilot project.
- Under the Manitoba Innovations Fund, 28 projects received $6.83 million in funding. This leveraged an additional $6.15 million in matching contributions from CFI in 2002/03.
- Health Research Initiative (HRI) funding, totaling $3 million was provided to the five research centres.

- Manitoba Centres of Excellence Fund provided support totaling $410,000 to 12 projects and leveraged federal support at the 5:1 ratio.
- The Province of Manitoba is providing operating grants totaling $600,000 over three years to support the establishment of Incubat.
- The department represented Manitoba on the national Technology Working Group established to identify and foster key technologies that reduce greenhouse gas emissions.
- We are leading the CyberSchools Education Portal in support of the new initiative to bring email access to Manitoba students.
- The department provided approximately 1.3 million port minutes of audio conferencing to the education community, government departments and related organizations.
- An IT Strategic Direction Document was developed to provide direction for the development of plans to implement technology.
- The Next Generation Provincial Data Network was successfully implemented.
- The Churchill Community Network and the St. Pierre-Jolys Project were successfully implemented, and are models for other areas interested in community owned ISPs.
- The Memorandum of Agreement (MOA) with Industry Canada has been extended providing an additional $2.48 million to further develop and support existing community access sits.
- In support of Manitoba manufacturing, BioMedical and Life Sciences sectors, the Virtual Reality Centre (VRC) has hosted seminars to provide information and case studies on the advantage of using advanced visualization and virtual reality technology.
- The department continues to support Manitoba industry by providing services that apply innovative technologies, enabling improvement to production processes and products.

The department is committed to the Principles and Guidelines set out in the Sustainable Development Act and works to incorporate them in departmental activities, programs and business practices. Departmental initiatives in support of sustainable development are minimizing waste through the efficient use of office supplies and recycling, increased utilization of the internet to communicate and disseminate information to our clients, delivery of a variety of seminars and implementing audio conferencing.

The department continues to participate on various Sustainable Development Committees and Working Groups such as the Steering Committee, the Code of Practice, Financial Management Guidelines, Sustainability Reporting and the Regulation Sustainable Development working teams.

The department is continuing to undertake initiatives and strategic planning that will contribute to the success of Manitoba.

Respectfully submitted,

John Clarkson
Deputy Minister

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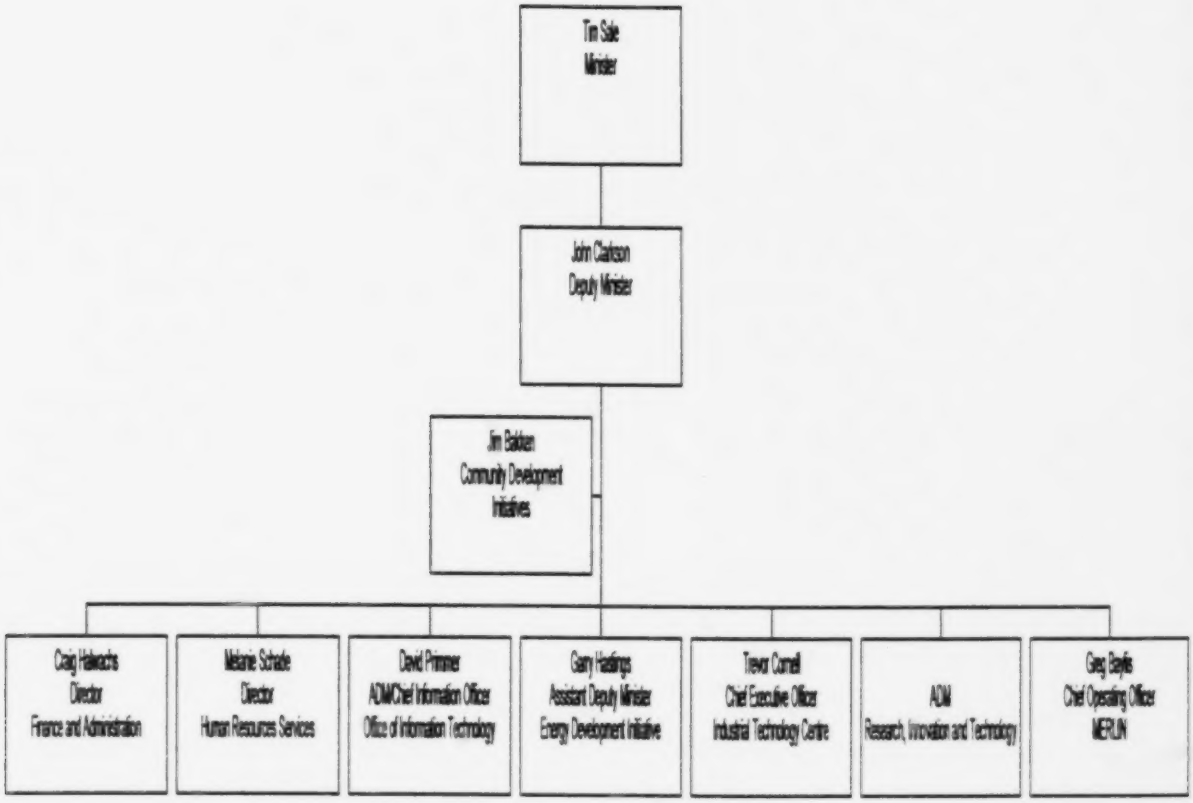
ENERGY, SCIENCE AND TECHNOLOGY
ORGANIZATION CHART



As of March 31, 2003

PREFACE

INTRODUCTION

As part of a governmental reorganization, The Department of Energy, Science and Technology (EST) was established in September of 2002. EST comprises of the following: Research, Innovation and Technology, Energy Development Initiative, and the Industrial Technology Centre from Industry, Trade and Mines (ITM); the Manitoba Education, Research and Learning Information Network (MERLIN) from Department of Education, Training and Youth; Climate Change from Department of Conservation; Office of Information Technology from Department of Finance and; Manitoba Health Research Council from Department of Health. It should be noted Financial and Administration Services under ITM is a cooperative unit that also provides service to EST.

REPORT STRUCTURE

The Annual Report is organized in accordance with the department's appropriation structure as at April 2002 and in the Main Estimates of Expenditure for the Province. The Report includes financial performance and variance information at the main and sub-appropriation levels and information relating to the department's objectives and results at the sub-appropriation level. The Report also includes information about associated agencies, business assistance, revenue and expenditures, a five-year comparison of expenditures and a staffing analysis.

STATUTORY RESPONSIBILITIES

The Minister of Energy, Science and Technology is responsible for the following:

The Gaming Control Act
The Gaming control Local Options (VLT) Act
The Economic Innovation and Technology Council Act
The Energy Act
The Manitoba Health Research Council Act
The Manitoba Hydro Act

Schedule "G" & "Q", Order-In-Council 419/2002

SUSTAINABLE DEVELOPMENT

The department is committed to the Principles and Guidelines set out in The Sustainable Development Act and works to incorporate them in department activities, programs and business practices.

The Principles and Guidelines of Sustainable Development are:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding
4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global Responsibility
8. Efficient uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation.

The Sustainable Development Procurement Goals:

14. Education, Training and Awareness
15. Pollution Prevention and Human Health Protection
16. Reduction of Fossil Fuel Emissions
17. Resource Conservation
18. Community Economic Development

ORGANIZATION

The department's 2002/03 organization structure is illustrated in the Organization Chart, page i. The roles, responsibilities and staffing are outlined in the following information.

ROLE AND RESPONSIBLITIES

MISSION

The department will increase the innovative capacity of all Manitobans to support community development, economic growth, and diversification and provide a focus for government information technology requirements.

FOCUS

The Department was established in recognition of the following:

- ***Innovation*** is key to future economic development and ***capacity to deliver*** government initiatives.
- ***Energy, science and technology*** are critical to the further development of the Manitoba economy.
- Government's need to ***focus*** economic development priorities,
- and ***strengthen*** the approach to economic development.

The Department will:

- Focus provincial innovation activities;
- Assist in the growth and success of our science, research and technology assets;
- Strengthen, develop, grow and attract knowledge-based industries;
- Focus government information technology requirements;
- Build community based partnerships through connectivity;
- Focus government climate change implementation plans;
- Strategically develop Manitoba's energy resources, in co-operation with public and private sectors
- Support innovation in communities and schools;
- Link response to climate change with innovation and economic success;
- Link government's own IT activities with innovation and economic development.

The Department will work collaboratively with business, individuals, government departments and communities to:

- Strengthen their capacity to succeed;
- Enhance the competencies they need to prosper;
- Raise their profile locally, nationally and internationally; and
- Foster an environment that supports sustainable economic growth,

Some of the immediate and short-term priorities for the Department are:

- The development of a comprehensive national implementation framework for the climate change initiatives
- The communication and implementation of an Innovation Framework for Manitoba.
- The approval of research funding through the Research and Innovation Fund for the current fiscal year
- The development of a plan for the East West Hydro Grid
- The implementation of an Ethanol mandate for the Province
- The development of Broadband community based networks
- Participating with the Coordinated Services Committee and the Coordinated Services Unit in the completion of the IT review
- The development and implementation of a comprehensive business development strategy for the Biotechnology development

To achieve its mission, the department is organized in 4 divisions:

ADMINISTRATION AND FINANCE DIVISION provides for the executive management of the department and central financial, administrative, human resources and computer support services to departmental programs.

ENERGY DEVELOPMENT INITIATIVE develops and implements energy development and climate change initiatives, and economic development strategies involving hydro-electric resources and alternate energy development opportunities. Develops, monitors and coordinates the implementation of energy policies and climate change initiatives and related provincial programs.

MANITOBA RESEARCH, INNOVATION & TECHNOLOGY functions as the government's primary focus for business development services to industry and communities in the areas of life sciences, knowledge enterprises, technology and infrastructure to support economic growth and stimulate employment. Develops strategic plans, business plans and provides research, analysis and evaluation services; develops, analyzes and communicates policies related to telecommunications; oversees the implementation of the Manitoba Centres of Excellence fund, the Manitoba Innovations Fund and the Research and Innovation Fund; provides a coordinating function for all research, innovation, science and technology initiatives in government; provides funding for the Health Research Initiative.

OFFICE OF INFORMATION TECHNOLOGY develops a comprehensive e-strategy for the province building on strengths in business, education and government community; develops key Information and Communication Technology (ICT) strategies, policies, standards and business processes to optimize the delivery of core ICT functions in support of service delivery goals; provides an information and communication technology environment within government where appropriate technologies are fully integrated with service delivery requirements; and provides analytical framework for review and approval of all ICT plans, projects and expenditures.

AVANT-PROPOS

INTRODUCTION

Le ministère de l'Énergie, de la Science et de la Technologie (EST) a été créé en septembre 2002 dans le cadre d'une réorganisation du Cabinet. Le ministère est composé des sections suivantes : Recherche, innovation et technologie (RIT), Initiative de développement énergétique (IDE) et Centre de technologie industrielle d'Industrie, Commerce et Mines (ICM); Réseaux informatiques en apprentissage et en recherche pédagogique du Manitoba (MERLIN) du ministère de l'Éducation et de la Jeunesse; Direction du changement climatique du ministère de la Conservation; Bureau de la technologie de l'information (BTI) du ministère des Finances; et Conseil manitobain de recherche en matière de santé du ministère de la Santé. Il faut souligner que la Division de l'administration et des finances d'ICM est une unité partagée qui offre également des services à EST.

STRUCTURE DU RAPPORT

La présentation du rapport annuel reflète la structure budgétaire du ministère en avril 2002 et celle du Budget des dépenses de la Province. Le rapport contient des renseignements sur les postes principaux et secondaires du budget en ce qui concerne le rendement financier et les écarts par rapport aux prévisions, ainsi que des renseignements sur les postes secondaires en ce qui concerne les objectifs du ministère et les résultats obtenus. Il présente en outre des renseignements sur les organismes associés, le soutien aux entreprises, les recettes et les dépenses, ainsi qu'une récapitulation quinquennale des dépenses et de la dotation en effectif.

RESPONSABILITÉS LÉGISLATIVES

Le ministère de l'Énergie, de la Science et de la Technologie veille à l'application des lois suivantes :

Loi sur la Commission de régie du jeu
Loi sur les options locales en matière de jeu (appareils de loterie vidéo)
Loi sur le Conseil de l'innovation économique et de la technologie
Loi sur l'énergie
Loi sur le Conseil manitobain de la recherche en matière de santé
Loi sur l'Hydro-Manitoba

D'après l'Annexe « G » et « Q » du décret 419/2002

ORGANISATION

L'organigramme, qui se trouve à la page i, reflète la structure organisationnelle du ministère pendant l'exercice 2002-2003. L'information qui suit porte sur le rôle et les responsabilités du ministère ainsi que sur la dotation en personnel.

RÔLE ET RESPONSABILITÉS

MISSION

La mission du ministère consiste à accroître la capacité d'innovation de tous les Manitobains afin de soutenir le développement communautaire, la croissance économique et la diversification et à offrir un point de convergence pour les besoins du gouvernement en matière de technologie de l'information.

INTÉRÊT

Le ministère a été créé en reconnaissance de ce qui suit :

- ***l'innovation*** est la clé du développement économique et de la ***capacité de mener à bien*** les initiatives gouvernementales;
- ***les secteurs de l'énergie, de la science et de la technologie*** sont essentiels à la prospérité économique du Manitoba;
- le gouvernement doit ***faire converger*** ses priorités en matière de développement économique;
- et il doit ***renforcer*** l'approche au développement économique.

Le ministère

- mettra l'accent sur les activités provinciales liées à l'innovation;
- contribuera à la croissance et au succès de nos atouts dans les secteurs de la science, de la recherche et de la technologie;
- renforcera, développera, fera croître et attirera des entreprises fondées sur le savoir;
- fera converger les besoins du gouvernement en matière de technologie de l'information;
- créera des partenariats dans la collectivité grâce à la connectivité;
- mettra l'accent sur les plans de mise en œuvre du gouvernement liés au changement climatique;
- mettra en valeur, de manière stratégique, les ressources énergétiques du Manitoba en collaboration avec les secteurs public et privé;
- soutiendra l'innovation dans les collectivités et les écoles;
- fera le lien entre la réponse au changement climatique d'une part et l'innovation et le succès économique, d'autre part;
- fera le lien entre les activités de TI du gouvernement d'une part et l'innovation et le développement économique, d'autre part.

Le ministère collaborera avec les entreprises, les particuliers, les autres ministères et les collectivités aux fins suivantes :

- renforcer leur capacité de réussite;
- rehausser les compétences dont ils ont besoin pour réussir;
- améliorer leur image aux plans local, national et international; et
- favoriser un environnement qui soutient la croissance durable de l'économie.

Parmi les priorités immédiates et à court terme du ministère, il y a celles-ci :

- élaboration d'un cadre national détaillé de mise en œuvre des mesures liées au changement climatique;
- diffusion et mise en œuvre d'un cadre pour l'innovation au Manitoba;
- approbation de fonds de recherche par le biais du Fonds pour la recherche et l'innovation pour l'exercice en cours;
- élaboration d'un plan pour le réseau hydroélectrique est-ouest;
- mise en œuvre d'un mandat en matière d'éthanol pour la province;
- création de réseaux communautaires à large bande;
- parachèvement de l'examen des TI, avec le Coordinated Services Committee et le Coordinated Services Unit;
- élaboration et mise en œuvre d'une stratégie détaillée de développement des entreprises pour la mise en valeur du secteur de la biotechnologie.

Pour mener à bien sa mission, le ministère est organisé en quatre divisions :

DIVISION DE L'ADMINISTRATION ET DES FINANCES : offre un appui à la haute direction du ministère et fournit des services centralisés de gestion financière et administrative, de ressources humaines et de soutien informatique aux programmes ministériels.

INITIATIVE DE DÉVELOPPEMENT ÉNERGÉTIQUE DU MANITOBA : élabore et mène à bien des initiatives en matière de développement énergétique et de changement climatique ainsi que des stratégies de développement économique touchant les ressources hydroélectriques et les possibilités de mise en valeur d'énergies de rechange; élabore, surveille et coordonne la mise en œuvre de politiques énergétiques, d'initiatives en matière de changement climatique et d'autres programmes connexes du gouvernement.

RECHERCHE, INNOVATION ET TECHNOLOGIE DU MANITOBA: agit comme principal point de convergence du gouvernement pour les services de développement des entreprises destinés à l'industrie et à la collectivité dans les secteurs des sciences de la vie, des entreprises du savoir, de la technologie et des infrastructures en vue de soutenir la croissance économique et de stimuler l'emploi; élabore des plans stratégiques et des plans d'activités; fournit des services de recherche, d'analyse et d'évaluation; élabore, analyse et diffuse des politiques liées aux télécommunications; supervise la mise en œuvre du Fonds pour les centres d'excellence du Manitoba, le Fonds des innovations du Manitoba, et du Fonds pour la recherche et l'innovation du; fournit des services de coordination aux initiatives de recherche, d'innovation, de science et de technologie du gouvernement; finance des initiatives de recherche en santé.

BUREAU DES TECHNOLOGIES DE L'INFORMATION : élabore une stratégie détaillée des services en ligne pour la province en s'appuyant sur les forces des secteurs des affaires et de l'éducation ainsi que sur celles du gouvernement et des collectivités; élabore des stratégies, des politiques, des normes et des méthodes administratives clés pour les technologies de l'information et des communications (TIC) afin d'optimiser la prestation des principales fonctions des TIC en appui aux objectifs de prestation des services; fournit une architecture des TIC au sein du gouvernement en intégrant les technologies appropriées aux exigences en termes de prestation de services; fournit un cadre d'analyse pour l'examen et l'approbation des plans, des projets et des dépenses en matière de TIC.

SECTION 1

MINISTER AND EXECUTIVE SUPPORT

Formerly
Main Appropriation 5
(Consumer and Corporate Affairs)

ADMINISTRATION AND FINANCE

MINISTER'S SALARY AND EXECUTIVE SUPPORT

The Administration and Finance Division comprises the Executive Support Offices and the consolidated Financial and Administrative Services section of ITM.

EXECUTIVE SUPPORT

Executive Support includes the Offices of the Minister and Deputy Minister. The Minister provides leadership and direction to ensure the goals and objectives of the department are accomplished. The Office of the Deputy Minister provides the Minister with advice and information regarding issues and matters of concern to the department. Executive Support is responsible for providing the department with policy direction and the overall planning and co-ordination of departmental activities.

5-1(a) Minister's Salary

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Minister's Salary	28.3	1.00	28.4	(0.1)	
Total Expenditures	**28.3**	**1.00**	**28.4**	(0.1)	

5-1(b) Executive Support

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	339.0	6.00	361.4	(22.4)	
Total Other Expenditures	85.1		47.7	37.4	1
Total Expenditures	**424.1**	**6.00**	**409.1**	**15.0**	

1. The variance is due to increased general operating costs.

ADMINISTRATION AND FINANCE
MINISTER and EXEUCTIVE SUPPORT

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO:	
- Energy, Science and Technology	437.5
2002/03 ESTIMATE	437.5

Minister and Executive Support
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
	5-1 Administration and Finance				
28.4	(a) Minister's Salary	28.3	28.0	0.3	
	(b) Executive Support				
361.4	Salaries & Employee Benefits	339.0	354.4	(15.4)	
47.7	Other	85.1	44.5	40.6	1
437.5	TOTAL FOR MINISTER AND EXECUTIVE SUPPORT	452.4	426.9	25.5	

1. General operating costs were higher in 2002/03.

Minister and Executive Support
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 2003

	Actual/Adjusted Expenditures									
	1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
Appropriation	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**
Minister and Executive Support									4.10	452.4
TOTAL									4.10	452.4

- Adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganizations during the five years.

SECTION 2

OFFICE OF INFORMATION TECHNOLOGY
CAPTIAL INVESTMENT (PART B)
AMORTIZATION OF CAPITAL ASSETS

Formerly
Main Appropriation 7
(Finance)

OFFICE OF INFORMATION TECHNOLOGY

The Office of Information Technology (OIT) was transferred from the department of Finance and is responsible for overseeing the strategic use of information technology resources for the Government of Manitoba, with a goal of improved operations and better service delivery for Manitoba citizens.

OBJECTIVES

OIT Responsibilities

- Provide strategic direction to government regarding the use of information technology (IT).
- Develop project planning, budgeting and reporting mechanisms to manage IT investments
- Provide input for the policies and legislation to support the use of IT.
- Develop strategies to support competency development of IT professionals.
- Design and monitor the standardized corporate IT infrastructure.
- Develop an enterprise IT architecture that promotes standards and best practices for use throughout government.
- Work with program managers to maximize the business value of IT.
- Facilitate the integration of IT and business planning cycles by working with program managers and IT directors.
- Ensure the security of government systems, confidential information, and electronic transactions.
- Manage the province's presence on the Internet, enable the use of the Intranet, and ensure reliable web services, including developmental standards, best practices and hosting.
- Provide IT contract negotiation support and development of IT contracting best practices for government.

ACTIVITIES/RESULTS

OIT resources are aligned in the following program areas:

Management Support

Provides executive and administrative support to the Chief Information Officer and staff of OIT. This group also provides office and financial management and essential financial analyses for proposed IT projects, strategic initiatives and IT systems plans.

Enterprise Technologies

Responsible for the planning and design of the government's enterprise wide technology architecture and infrastructure, including the monitoring of IT assets to ensure appropriate use, adherence to standards and management of strategic services that support the corporate architecture and infrastructure. Under the direction of the Chief Technology Officer, this group is comprised of:

Alignment/Architecture

- Planning and design of the enterprise-wide architectures for information (applications and data), and technology (communication, desktop, and data).
- Provide direction for the use and future growth of these architectures.

Accomplishments in 2002/03 included:

- Engaged in the development of a government-wide information and communications technology (ICT) technical architecture, including security, privacy, application and integration, information, technology, and service management. The core principles of the work reflect the need to ensure that ICT systems and services align with the needs of government.
- Identified the need for a management approach to Manitoba's technology and application life cycles. An approach that classifies areas of containment, retirement, and emerging technologies was

- Developed. From this, a document was created to provide guidance in the selection and alignment of technologies used, and their expected life cycle.
- Worked on directory services, which many new applications use to support the services they provide. The impact of directory services on the technology infrastructures and support/management approaches are significant. A working group was set up to lead this activity, and a directory workshop was held, with extensive departmental participation.

Information Protection Centre (IPC)
Ensures that government networks remain secure, yet open, accessible and reliable, by providing three categories of services:

- Operations – virus protection, security expertise, intrusion detection/perimeter protection, security awareness and education, and IT security policy.
- Research and Development – trials on various products, and software and hardware tools.
- Threat Risk Analysis/Vulnerability Analysis – annual assessment of government security position.

Accomplishments in 2002/03 included:

- Identified the need for a corporate antivirus solution that would serve servers in the Managed Environment, as well as departmental application servers. As a result, Trend Micro Neat Suite, a virus protection product, was installed and extends current antivirus measures throughout government.
- Developed a multi-year security education and awareness plan for government, including training sessions, training materials and messages, and program measurement.
- Expanded and upgraded its Intrusion Detection systems to include the Better Systems Initiative (BSI) and SAP.
- Delivered the Manitoba Government Standard of Best Practice for IT Security Management, which represents the first comprehensive security management standard for government.
- Conducted research into Instant Messaging (IM) security, server patch management, antivirus, firewall architecture, Virtual Private Networks (VPN), and two factor authentication products.
- Conducted assessments of a number of new departmental and corporate initiatives, which were provided to their business owners, resulting in enhancements to the security of the applications under development.

ManWeb
Provides regular technical evaluation of the Manitoba web site, coordinates activities with Hosting Services and IPC, technical consultation and approval, web development, communication of standards, project management, and research

Accomplishments in 2002/03 included:

- installation and implementation of webtrends, software that analyzes and reports on activity on the Government of Manitoba website.
- Evaluated, configured, installed and implemented the Google Search Engine on the Government of Manitoba website. Capability and functionality for users conducting searches on government sites has increased greatly.
- Finalized and published the Web Site Development Standards, which assists government web developers to design websites to meet needs of government customers within an uniform and standard framework. The guide contains a consolidated set of principles, policies and processes meant to provide consistency for government web site design.
- Redesign of the website of the Lieutenant Governor of Manitoba (http://www.lg.gov.mb.ca).

Hosting Service Centre
Responsible for the provision and maintenance of a computer facility in support of the Manitoba Internet and Intranet presence. The centre makes services available to all departments that use the facility to extend their program offerings on the Internet and Intranet in a controlled, secure and cost-effective manner.

Accomplishments in 2002/03 included:

- New centralized archiving software and hardware were implemented for the majority of servers in the centre, allowing for more storage, and the ability to automate and centrally manage archiving and restoring information on the servers.
- Increased manitoba's connection capacity to the internet, enhancing the ability to respond to high-demand services, like the throne speech and budget announcements. This also enables richer forms of content, like live audio and video, to be more widely used.
- In conjunction with the icp, new firewalls were added to the centre. These firewalls allow for greater control over all communications and network security. The more advanced network design expands the ability to segregate sensitive information and high-risk technologies for government applications and services.

Strategic Planning and eGovernment

Responsible for articulating the vision for information technology and eGovernment in the Manitoba Government, and establishing the high-level priorities and strategic planning needed to achieve that vision. The group also seeks opportunities to align the province's technology resources to meet government goals.

Accomplishments in 2002/03 included:

- Increased use of Information Technology Infrastructure Library (ITIL) principles.
  In the winter/spring of 2003, EDS Canada was engaged to lead an Incident and Configuration project based on the ITIL principles. The objective of this project was to assess and document the existing workflow processes, service interactions with customers, and enhance the availability of service and management information in the manweb and Hosting Services Centre.
- An ITIL Users Group, where a group of professionals representing both the public and private sector with interest in the ITIL Framework, has been meeting for a little over a year. The purpose of the group is to share information, experiences and potential training opportunities.
- Development of the IT Strategic Direction Document, which provides direction for development of plans to implement technology that meets an organization's vision and mission.
- Modular Contract - OIT worked with Desktop, Telecommunication and Network Services Branch to explore the possibilities of a modular approach to the next Desktop Management Services Agreement.

Business Analysis

Business Analysis provides guidance and advice to departments in managing their portfolio of information technology investments. Based on the interaction with departments, the group provides feedback to functional areas within OIT to assist in the overall planning of strategic and tactical activities.

Accomplishments in 2002/03 included:

- Provided analysis and recommendations on information technology related decisions from across government for Treasury Board's consideration.
- Reviewed departmental information technology plans and prepared a report on key trends and issues.
- Advised departments on the development of project plans, request for proposals and contracts.
- Advised senior management on specific issues and trends in information technology.
- Geospatial Information Systems (GIS), where the Manitoba Land Initiative (MLI) achieved a major milestone in gaining approval to provide free and unrestricted access to the MLI data warehouse over the Internet to the public.
- A strategic planning session for GIS was facilitated that brought together interested stakeholders from across government to consider the future development and role of GIS within government as a critical management tool.

- Enterprise Architecture and ICT Strategic Planning - working with the Chief Technology Officer (CTO) in the development of the government wide Enterprise Architecture.
- Worked with senior staff to develop ICT strategic plans and direction for Manitoba.
- IT Competency Development - delivered development and training opportunities to over 140 government IT staff, with approximately half the development in technical competencies, and the other half in managerial competencies
- Worked with the Civil Service Commission in development of a corporate approach to Competency Based Human Resource Management in government.

Better Systems Initiative (BSI)

BSI is one of several strategic IT initiatives to improve the ability of government to deliver better service. The focus of BSI is delivery of electronic services in support of program delivery and eGovernment. The vision is to provide the public with multi-channel access to services and information, while presenting government with a consolidated view of the businesses and citizens it serves.

Accomplishments in 2002/03 included completion and deployment of these applications:

- Child Daycare - online application used by childcare workers for purposes of applying for the re-issuance, or an upgrade, of a childcare worker certificate.
- Licensed Childcare Search - online registry of childcare facilities, enabling the public to search for childcare facilities (including vacancies). This registry allows the childcare facility to provide specific information about their facility, and to advertise vacancies.
- Facility Reporting - used to calculate the utilization of daycare spaces. Facilities submit attendance reporting online for subsidized and non-subsidized children to receive payment from the department. This application is available to all daycare facilities within the province.
- Taxation - Manitoba Finance uses this integrated tax system to manage numerous tax statutes. Specifically, these modules were deployed:
- RST - application used to manage the collection of Retail Sales Tax.
- CCT- used to manage the collection of Corporate Capital Tax.
- Audit Module - required to complete the integrated business information.
- Companies Office Name Reservation - used by the public to submit name reservations on-line.
- Business Inspections - Licensed gas fitters, utility companies and gas suppliers use this service online to apply and pay for permits required before the installation of new and replacement gas and oil burning equipment.

7-8 Office of Information Technology

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,947.1	29.00	2,047.9	(100.8)	
Total Other Expenditures	2,290.9		2,560.7	(269.8)	
Less: Recoveries from other Appropriations	(102.5)		(120.0)	17.5	
Total Operating Expenditures	**4,135.5**	**29.00**	**4,488.6**	**(353.1)**	

CAPITAL INVESTMENT

Capital Investment is provided in the Estimates of Expenditures under Part B. For the year ended March 31, 2003, the department's capital authority provided for the purchase of hardware and software to provide for the development of an information technology infrastructure refresh business plan. Support for internal reform initiatives involving the use of information technology in the delivery of government's services, including the Better Systems Initiative, are reported separately.

Part B - CAPITAL INVESTMENT

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
B10 - Other Information Technology Projects	268.0		300.0	(32.0)	
Total Capital	**268.0**		**300.0**	**(32.0)**	

AMORTIZATION OF CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates. Consistent with this policy, this sub-appropriation records the costs associated with the amortization of the Department's share of the total estimated costs of the Desktop Management Initiative and Enterprise System Management allocated to the Department. In the case of Desktop, based on units acquired by the Department as a percentage of total units acquired by the Province and, in the case of Enterprise System Management, by projected departmental used. A small amount is also included for the amortization of other departmental assets.

7-9 Amortization of Capital Assets

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
7-9b-1 Amortization of Expenses - Hardware & Transition	23.0		24.8	(1.8)	
7-9b-2 Amortization Expense - Enterprise Software	4.1		4.4	(0.3)	
7-9b-3 Enterprise Software Licenses	11.7		11.7	-	
7-9c Amortization Expense	117.4		119.7	(2.3)	
7-9d Interest Expense	34.4		34.7	(0.3)	
Total Expenditures	**190.6**		**195.3**	**(4.7)**	

OFFICE OF INFORMATION TECHNOLOGY
CAPTIAL INVESTMENT (PART B)
AMORTIZATION OF CAPITAL ASSETS

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO: - Energy, Science and Technology	4,983.9
2002/03 ESTIMATE	4,983.9

Office of Information Technology
Capital Investment
Amortization of Capital Assets
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2000/01 $	Increase (Decrease) $	Explanation Number
	7-8 Office of Information Technology				
2,047.9	(a) Salaries & Employee Benefits	1,947.1	1,810.4	136.7	
2,560.7	(b) Other	2,290.9	2,171.7	119.2	
(120.0)	(c) Less: Recoveries from other Appropriations	(102.5)	(84.6)	(17.9)	
4,488.6	TOTAL 7-8	4,135.5	3,897.5	238.0	
	Capital Investment				
300.0	**B-10 Other Information Technology projects**	268.0	260.0	8.0	
300.0	TOTAL Capital Investment B-10	268.0	260.0	8.0	
	7-9(b) Desktop Services				
24.8	(1) Amortization of Expenses -Hardware & Transition	23.0	36.4	(13.4)	
4.4	(2) Amortization of Expenses - Enterprise Software	4.1	9.1	(5.0)	
11.7	(3) Enterprise Software Licenses	11.7	-	11.7	
40.9	TOTAL 7-9	38.8	45.5	(6.7)	
	7-9				
119.7	(c) Amortization Expense	117.4	62.3	55.1	
34.7	(d) Interest Expense	34.4	22.7	11.7	
154.4	TOTAL 7-9	151.8	85.0	66.8	
4,983.9	TOTAL FOR OFFICE OF INFORMATION TECHNOLOGY	4,594.1	4,288.0	306.1	

Office of Information Technology
Capital Investment
Amortization of Capital Assets
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 1999 - March 31, 2003

Actual/*Adjusted Expenditures

Appropriation	1998-99 FTE	1998-99 $	1999-2000 FTE	1999-2000 $	2000-01 FTE	2000-01 $	2001-02 FTE	2001-02 $	2002-03 FTE	2002-03 $
OPERATING										
Office of Information Technology	12.00	2,226.5	24.00	4,012.7	29.00	4,259.2	29.00	3,902.8	29.76	4,135.5
Amortization of Capital Assets										190.6
TOTAL	12.00	2,226.5	24.00	4,012.7	29.00	4,259.2	29.00	3,902.8	29.76	4,326.1
Expenditures Related to Capital		**700.0**		**700.0**		**286.0**		**260.0**		**268.0**

* - Adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganizations during the five years.

SECTION 3

FINANCIAL AND ADMINISTRATION
ENERGY DEVELOPMENT INITIATIVE
MANITOBA RESEARCH, INNOVATION AND TECHNOLOGY
INDUSTRIAL TECHNOLOGY CENTRE
AMORTIZATION OF CAPITAL ASSETS

FORMERLY
MAIN APPROPRIATION 10
(INDUSTRY, TRADE AND MINES)

ADMINISTRATION AND FINANCE

FINANCIAL AND ADMINISTRATIVE SERVICES

The Financial and Administrative Services Branch provides services to the departments of Energy, Science and Technology (EST) and Industry, Trade and Mines (ITM) and related agencies. The Branch provides financial management, administrative, computer and human resource services to both departments.

OBJECTIVES

The objectives of Finance and Administrative Services is to: provide leadership, program direction and operational coordination to support department activities; to provide high quality, timely and customer responsive administrative, financial management, computer and personnel service; to develop and administer appropriate administrative and financial standards, policies and procedures and to develop and maintain appropriate reporting systems to provide timely and accurate decision-making information to senior management in the departments and in central agencies through a centralized support service.

ACTIVITIES/RESULTS

In support of the branch objectives and the mission of the Department, the branch processed payments and receipts; recruited, deployed, trained and paid staff; administered and coordinated the Department's parking and pool vehicle programs; provided for physical accommodations including furniture and equipment and mail distribution; provided advisory and specialized accounting and financial management services to departmental personnel and related entities; supervised the Freedom of Information and Protection of Privacy Act; managed the Department's records management program and provided timely, accurate and relevant information to departmental and central agency decision-makers including budgetary and cash flow information to Treasury Board.

In 2002/03 Financial Services processed the following for EST and ITM; 43,850 Payment/revenue transactions, 188 Authority-seeking documents and 48 Freedom of Information requests.

In addition, the section prepared both EST's and ITM's Detailed Estimates, coordinated the preparation of the Estimates Supplement, Annual Report and all other year-end financial reports.

The Human Resource Services section provided staffing, employment equity, job analysis and classification, employee counselling, labour relations, and pay and benefits administration. The shared resources of the unit also provide staff and organizational development, occupational health and safety, and employment equity program development.

Human Resource staff that support Energy Science and Technology are part of the consolidated HR unit that also services the Departments of Culture Heritage and Tourism, Finance, Industry, Trade & Mines, and the Office of the Auditor General

Human Resource activities are carried out in accordance with The Civil Service Act, the Manitoba Government Employee Union Master Agreement, Manitoba labour laws, and Workplace Health and Safety legislation.

Specific activities of Human Resource Services during 2002-2003 included:

Employment Equity Statistics as at Fiscal Year End

	1999-2000 Actual (%)	2000-2001 Actual (%)	2001-2002 Actual (%)	2002-2003 Actual (%)
Aboriginal (ITM)	1.8	3.3	4.4	4.2
Aboriginal EST)				1.3
Women(ITM)	47.0	47.7	47.1	47.9
Women (EST)				47.4
PersonswDisability(ITM)	1.2	2.5	2.9	2.9
PersonswDisability(EST)				2.6
Visible Minority(ITM)	2.4	2.9	2.9	3.4
Visible Minority(EST)				2.6

- The branch continues to co-ordinate the implementation of government-wide policies and initiatives.
- Maintained payroll records for 94 EST employees.
- Provided benefit information on employee appointment, retirement, death benefits, long term disability and lay-off to 10 EST employee/family members.
- One temporary position was filled through formal competition process for EST. Five positions were filled through various direct appointments for EST.
- Consulted with departmental management/supervisory personnel, employees and the M.G.E.U. in the resolution of numerous labour relations issues, which included the filing of one formal grievance for EST.
- Continued to hire a number of individuals from the Outreach/Inventory list. The list is established to provide opportunities to qualified candidates on a casual and/or term basis. Energy Science and Technology participated in the Aboriginal Management Project with the Civil Service Commission.
- Prepared detailed classification analysis under delegated and non-delegated authority for 4 reclassification requests for EST.
- Staff attended seminars totaling approximately 129 days of learning events for ITM and EST that were designed and delivered in 2002. These events range from HR Management modules to Managing Change, Competencies/Employee Performance Development and Leadership Development programs.

The Computer Services section provided the department with Information Technology support services including: computer systems design and implementation; equipment evaluation and acquisition (outside Desktop Initiative); user education and assistance (outside the standard suite); and, implementation of government wide initiatives from the OIT office and adherence to guidelines and standards set.

10-1(c) Financial and Administrative Services

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	73.9	1.00	41.4	32.5	1
Total Expenditures	**73.9**	**1.00**	**41.4**	**32.5**	

1. Variance due to position over-filling as a result of department re-organization.

ENERGY DEVELOPMENT INITIATIVE

ENERGY DEVELOPMENT INITIATIVE

The Energy Development Initiative (EDI) was transferred from Industry, Trade and Mines to form a key component of the department. Concurrently, the Climate Change Branch (illustrated under Section 4), formerly of the Department of Conservation was moved into EDI. The other two branches of EDI are Energy Policy and Energy Economic Development.

EDI was created to focus efforts on attracting industry based on Manitoba's electrical price and reliability advantage and to coordinate the government's efforts on developing energy policy.

In September of 2001, the Climate Change Task Force, Chaired by the Hon. Lloyd Axworthy, released its report. The report represents a broad strategy towards addressing climate change that includes taking advantage of the many economic opportunities that are available in a climate change era – including clean energy development. The Manitoba Climate Change Branch is responsible for broad implementation of the report.

The Canadian Parliament ratified the Kyoto Accord in 2002. This international treaty, should it come into effect, will change the Canadian environment and energy policy development context.

OBJECTIVES

The primary objectives of the Manitoba Energy Development Initiative include: developing and implementing government-wide economic development strategies encompassing Manitoba hydroelectric resources and other emerging renewable energy development opportunities; developing, analyzing and implementing provincial government's energy policies; and Climate Change initiatives.

ACTIVITIES/RESULTS

Energy Policy

The Energy Policy Branch is responsible for developing broad energy policies that establish a framework for sustainable energy economic development and programs that contribute to the reduction of greenhouse gas emissions. The following provides a summary of activities.

Ethanol: An Interdepartmental Ethanol Team was formed – coordinated by EDI. The team supported the citizen comprised Ethanol Advisory Panel. The Panel held public consultations in each region of the province. Their work culminated in the release of *A Report by the Ethanol Advisory Panel to the Government of Manitoba* in December 2002. The report contains 32 recommendations. An Ethanol Office has been created and housed within EDI, to coordinate the implementation of the panel report.

Hydro Projects: During the course of the year, Manitoba Hydro proceeded with its preparatory work that would eventually lead to a decision on whether or not to proceed in building the Wuskwatim Hydro Electric Project. Wuskwatim would be a low-impact 200 MW project on the Burntwood River. EDI assisted with this work where government involvement was required. Discussions were opened with government officials in Ontario relating to a new clean energy transfer from Manitoba to Ontario. Over the course of the year a pre-feasibility study was initiated on the merits of such a project.

Wind Power: EDI provided advice to Manitoba Hydro relating to wind energy. Manitoba Hydro developed a wind-monitoring program to be launched in the spring of 2003.

Other Renewable Energy: There are ongoing evaluations being conducted into the viability of other renewable energy initiatives including ground source heat pumps (geo-thermal heat pumps) and bio-gas projects. The division also represents Manitoba on the Powering the Plains Initiative and on the energy subcommittee of the Legislators Forum – both regional organizations were set up to foster cooperation between and amongst upper Midwest states and Manitoba.

East-West Grid: Manitoba continued its efforts to raise the national profile of an east-west power grid. Such an initiative would potentially result in enabling the transfer of clean energy from Manitoba to other Canadian jurisdictions.

Council of Energy Ministers: Manitoba hosted energy ministers from across the country in September 2002. The CEM meets annually to discuss energy related issues.

Energy Economic Development

The Energy Economic Development Branch (EED) is responsible for promoting existing energy sources and helping to develop emerging renewable energy sources for sustainable and environmentally responsible economic growth in Manitoba. EED partners closely with Manitoba Hydro in carrying out its responsibilities. The following provides a summary of activities:

Investment Attraction – Utilizing Manitoba low cost reliable hydroelectricity as a major attribute in attracting industrial investment from sectors most dependant on power or need for reliable power.

EED made contact with over 2000 North American company prospects through trade shows, conferences and mail-outs. Fifteen companies were personally visited outside of Manitoba and fifteen detailed Manitoba proposals were made to company prospects. EED participated in four sector trade shows and nine sector related conferences promoting the Manitoba Advantage. EED worked closely with a number of companies seriously considering Manitoba as place to invest or participate as partners in business endeavors including companies from the following sectors; wind energy, ethanol production, hydrogen technologies, pharmaceuticals, food processing, information technology and metal fabrication.

EED participated on various committees and liaised with a number of associations in Manitoba to help identify investment opportunities and company prospects. Groups included the Manitoba Agri-Food Research and Development Committee, Manitoba Horticulture Processing Committee, TR Labs, Manitoba Business Council, Manitoba Ethanol Committee, Mining Sector Evaluation Committee, Manitoba Hydrogen Steering Committee, and the Manitoba Association of Business Economists. EED also continued working with consultants on a power quality and reliability study to determine sectors and companies most dependant on these factors and a retention/expansion study to examine energy related programs to help Manitoba companies remain viable or to assist in expansions.

To help build profile for Manitoba a new Energy Development Initiative website was designed, advertisements promoting the Manitoba energy advantage were placed in a number of industry publications, the Power for Business brochure was revamped and several event sponsorships were undertaken.

Emerging Renewable Energy – Working closely with the Energy Policy Branch and Manitoba Hydro support the growth of emerging renewable energy economic opportunities.

Ethanol: EED provided ongoing input into policy development related to economic development and incentives. Eight companies were identified with possible interest in investing in Manitoba. After detailed discussions and further business case investigation, four companies continue to pursue ethanol plant development in Manitoba. EED continued to work with these companies by helping flesh-out business cases and facilitating meetings with Manitoba communities. EED also commenced development of an ethanol manufacturer's agreement.

Wind: EED provided ongoing business development support to two companies and one community interested in developing wind power projects in Manitoba. Shell Renewables and Manitoba Hydro announced an agreement to explore opportunities to jointly develop a wind farm. Sequoia/GREP has

announced their interest in developing a wind farm in Manitoba. A preliminary wind farm economic impact assessment was completed and further wind turbine manufacturing impact assessments commenced.

Hydrogen: EED continued to facilitate the Manitoba Hydrogen Steering Committee. The Manitoba Preliminary Hydrogen Opportunities Report was completed and released. Work on several priority activities identified within the report have already commenced including; initiating the hybrid hydrogen fuel cell transit bus project with Natural Resource Canada, New Flyer, Hydrogenics and two US companies, Manitoba Hydro commencing an electrolysis project to produce hydrogen, investigation of utilizing industrial bi-product hydrogen in a stationary fuel cell, an assessment of a hydrogen centre of expertise and the development of an MOU on hydrogen with the Government of Iceland. In addition a Ford Focus hydrogen fuel cell public demonstration was completed in Winnipeg.

10-2(d) Energy Development Initiative

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	714.9	11.00	756.6	(41.7)	
Total Other Expenditures	497.6		473.6	24.0	
Total Expenditures	**1,212.5**	**11.00**	**1,230.2**	**(17.7)**	

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

MANITOBA RESEARCH, INNOVATION AND TECHNOLOGY

OBJECTIVES

Manitoba Research, Innovation and Technology (RIT) was established in 2001, to provide Manitoba with a comprehensive, integrated and co-ordinated approach to innovation, research and technology initiatives.

The Division provides a focus for:

- research, innovation and technology policy development and co-ordination;
- knowledge based industry development and growth;
- community connections

RIT's mission is *to promote and enhance a climate of research, innovation and technology development that spurs responsible economic development for the benefit of all Manitobans.* Its objectives are to:

- Develop public policy initiatives in support of research, innovation and technology development;
- Develop a provincial innovation infrastructure;
- Build and strengthen the research and innovation capacity within the province;
- Build community capacity for sustained economic development in the new economy;
- Build the capacity for new company formation and growth; and
- Co-ordinate the implementation of public policy initiatives in the areas of research, information technologies, and investments.

The Division relies on the skills and expertise that already exists in government and does not duplicate efforts already being undertaken in other departments and branches. To meet its objectives, the Division has responsibilities related to:

Policy development
RIT has the responsibility for developing and leading the provincial innovation and research strategy, provincial technology strategies, and any other strategies related to knowledge based industry development, science and technology. The Division operates within a consultative and collaborative model to ensure that comprehensive strategies are developed.

Program delivery
RIT is responsible for:

- Creating an active and positive environment for business and investment in Manitoba. RIT assists knowledge-based companies with the identification of opportunities for innovation and strategic partnerships to support their growth. RIT also supports the transfer and incorporation of new and enabling technologies and promotes investment in research and development.
- Creating 440 additional public Internet access sites across Manitoba through the Community Connections Program.
- Encouraging science and technology (S&T) awareness and education through the Manitoba Network for Science and Technology (MindSet).

- Administering various funds that support research, innovation and technology including:
  - Manitoba Innovations Fund - The mandate is to increase the capability of Manitoba's universities, colleges, hospitals, and other not-for-profit institutions to carry out important world-class scientific research and technology development.
  - Research and Innovation Fund - The Fund is to be used to support institutional innovation activities and bringing technologies to the market place. Funding will be flexible depending on the type of project and the project requirements and is to be catalytic.

- Health Research Initiative – The objectives of the fund are to assist Manitoba's health research centres in attracting more health research funding to the province and to increase research and
    - development activities in Manitoba and facilitate sustained economic growth and the creation of high quality jobs.
    - The objectives of the Manitoba Centres of Excellence Fund (MCEF) are to attract and maintain world-class R&D activity in Manitoba and to generate related economic spin-off benefits for local companies and non-profit institutions.
    - Science Fairs/Education Grants provides funding to schools and school divisions to support various science fairs across Manitoba.
    - Manitoba Health Research Council – an annual grant is provided to the MHRC to support the operating costs of the Council and provide funding for their grant competitions.

Co-ordination of government initiatives
RIT's co-ordination function is one of consultation rather than direct authority over programs and initiatives to ensure that overall government objectives for research, innovation and technology development are addressed. This allows for programs to continue to benefit from the expertise, direction and accountability within their current departments.

ACTIVITIES/RESULTS

Life Sciences

BIO 2002 International Biotechnology Convention and Exhibition
Each year, BIO hosts the world's premier biotechnology conference, bringing together scientists, entrepreneurs and innovators from around the world. BIO 2002 saw over 16,000 registrants and 1,055 exhibitors. In response to interest from Manitoba biotechnology companies and research centres, 1200 sq ft of exhibit space was purchased for a Manitoba pavilion at BIO 2002. Within the pavilion, there were 10 Manitoba exhibitors: Cangene Corporation; Conviron; University of Manitoba; Manitoba Institute of Child Health; TRLabs; Manitoba Hydro; Medicure Inc.; National Microbiology Laboratory; Cardiovascular Solutions; and Manitoba Industry, Trade and Mines. In addition to the individuals working within the Pavilion, a number of Manitobans went to the convention itself. In total, 76 Manitobans participated in BIO 2002, up from 35 at BIO 2001 in San Diego and 10 at BIO 2000 in Boston. The event was among the largest ministerial missions ever coordinated by Industry, Trade and Mines. In a post-event evaluation, each company believed that they identified, on average, ten solid business leads. In particular, a business lead made at BIO 2002 led to a $2.0 million contract for one Manitoba company.

Business of Science Symposium
The Business of Science Symposium is a two-day conference designed to raise awareness, educate, celebrate and promote business and career opportunities in Manitoba's growing life sciences industry. The main objective of the Symposium is to strengthen the province's primary life sciences sectors - agriculture, health and environment - by creating awareness of industry and member capabilities and facilitating connectivity between stakeholders. The inaugural Symposium was held in Winnipeg on October 22 and 23, 2002. The event was highly successful in capturing the momentum of Manitoba's dynamic life sciences industry and celebrating its scientific and business expertise. More than 450 people attended the Symposium, business leaders, researchers, science and technology innovators, life sciences students and educators, capital providers, and government officials who support the life sciences sector. The event is a joint initiative between two departments: Energy, Science and Technology and Industry, Trade and Mines.

BioProducts Mission to Western Europe
In the fall of 2002, RIT joined a Federal/Provincial/Territorial bioproducts mission to western Europe organized by Bioproducts Canada. Collaborative research projects between European and Manitoba bioproducts stakeholders were explored through various meetings, resulting in the identification of opportunities for inward investment, partnerships and research collaborations. Special focus was given to follow-up meetings in conjunction with the Business of Science Symposium to be held in Winnipeg in October, 2003.

WorldNutra Conference
Manitoba was one of only a few Canadian exhibitors at the Worldnutra Convention held in San Diego in the fall of 2002. RIT showcased Manitoba's functional foods and nutraceuticals capabilities. Specifically, the Richardson Centre for Functional Foods and Nutraceuticals was profiled with the primary intent of recruiting researchers to the $25 million state-of-the-art R&D facility.

Canadian Biosciences Branding Initiative
RIT joined federal and provincial representatives in a project to create a consistent marketing strategy for selling Canadian bioscience capabilities in the United States. In response to the need to create a common message, DFAIT hired a marketing company from the United States to design a package that can be used by all DFAIT representatives in the US. RIT participated in a number of meetings and became members of the various working groups that related to Manitoba's bioscience activities and priorities.

Knowledge Based

TRLabs
This was the third year of the governments new 5 year investment of $2.4 million in TRLabs' Winnipeg facility. With this investment the Government and TRLabs agreed on new commercially focussed targets for the organization including the commercialization of research, creation of spin-off companies, increases in small and medium sized enterprises (SME) membership and in the number of personnel trained and retained within Manitoba.

Information, Communication and Technology (ICT) Procurement Review
Formed an inter-departmental committee charged with reviewing ICT procurement policies and practices to ensure that economic development opportunities are maximized.

TR Labs "Network of the Future"
Manitoba Government is a funding partner in a $10 million project that will connect TR*Labs* facilities in Edmonton, Calgary, Saskatoon, Regina and Winnipeg via what is estimated to be a 10 Gbit/s optical wide-area network – 10 000 times faster than typical in-home cable modem speeds. The network will be used to advance research and development of the communications 'network of the future', a higher speed, more secure, reliable, and economical system that will expand the horizons of how the Internet is used.

Short Term Accelerator Program
The Short Term Accelerator Program is a new initiative designed to assist small ICT and New Media companies to gain the business and communication skills necessary to access and attract venture capital.

Avalon Institute of Applied Science Inc.
The Avalon Institute is Manitoba's first privately funded academic institution that specializes in research, consulting and training in Environmental Science, Geological Sciences, Biological Sciences, Biotechnology, Engineering, Automation Systems and Information Technologies . RIT is assisting Avalon in establishing itself in the local scientific and academic community.

Going Green Conference and Trade Show
The provincial Sustainable Development Act requires the Province to develop and implement socially and environmentally responsible procurement practices. RIT assisted all three levels of government and the Centre for Indigenous Environmental Resources in the planning and delivery of a conference and trade shows held June 3, 2002. The event targetted all levels of government and big business. It included a VIP breakfast with keynote speaker Ray Anderson of Interface Flooring, a US Fortune 500 company.

Household Hazardous Waste Regulation
Manitoba Conservation is proposing a Household Hazardous (HHW) Waste regulation. The proposed regulation targets 11 categories including batteries, consumer paint products, corrosives, liquid fuels, domestic pesticides, pharmaceuticals, pressurized-flammable gas containers, solvent and flammable liquids, swimming pool chemicals, consumer electrical and electronic equipment and products containing mercury. Consumer electrical and electronic equipment is defined as televisions and video display

equipment, personal computers, laptop and portable computers, monitors and computer accessories (i.e. printers, scanners, data storage devices). RIT and Manitoba Conservation are collaborating to engage Manitoba's consumer electrical and electronic equipment businesses.

Manitoba Environmental Industries Survey
RIT collaborated with civic, provincial and federal government offices to create a comprehensive survey of the environmental industries sector in 2002. The survey focussed on training, innovation and R&D statistics of approximately 300 companies. RIT provided a base list of companies. The analysis was done in co-operation with the Prairie Centre for Business Intelligence.

New Media Centre of Excellence
RIT continues to work with partners to develop a world-class New Media Centre of Excellence to promote and develop research, technological innovation and new products within the New Media industry which will lead to the creation of new jobs, provide important social and economic benefits to the province and enhance new employment opportunities in science & technology for the youth of our Province. Such a centre will provide a focal point for the New Media Industry and other stakeholders in Manitoba, encompassing industry, government and educational institutions.

Virtual Reality Centre (a division of the Manitoba Industrial Technology Centre)
The Industrial Technology Centre, with funding from the Federal and Provincial governments, has established a Virtual Reality Centre (VRC). This unique facility introduces and provides industry, academia, and government, the opportunity to explore, exploit and further develop virtual reality technology in a cooperative and collaborative environment, which supports economic growth. The VRC allows all stakeholders to realize the benefits of using advanced technology for product design, plant simulation, infrastructure, and research projects. This allows users to better understand proposed products, processes and plans, by visualizing them without the actual physical creation or implementation. VR technology allows one to walk-through proposed buildings, fly-over proposed infrastructure and navigate proposed processes. Virtual Reality is currently being explored, tested and used by industry. The VRC has been engaged in projects, which have helped identify the benefits and value of this technology. Through such pilot projects, industry becomes more familiar, comfortable and committed to this leading edge technology. Benefits include improved products, bringing products to market faster and reduced risk of costly design or layout errors.

Eastern Manitoba Region Economic Development
RIT continues to work with the communities in the Eastern Region of Manitoba and primarily Pinawa to develop an economic development strategy. The strategy is aimed at generating economic growth to offset the losses resulting from the downsizing of AECL at the Whiteshell Labs site. RIT in partnership with Intergovernmental Affairs, the LGD of Pinawa and the Eastman Regional Development Corporation, has assisted the region in undertaking a labour force study conducted by Probe Research. The study was conducted to determine the skill sets and population demographics in the region to assist in the development of the regional economic development strategy.

COMMUNITY CONNECTIONS
On March 7, 2000 the Governments of Canada and Manitoba announced a cost-sharing Memorandum of Agreement (MOA) of up to $11.1 million that was to increase the number of public Internet access sites in Manitoba from 146 to 586. The Memorandum of Agreement (MOA) with Industry Canada has been extended providing a further $2.48 million for the 2002/2003 and 2003/2004 fiscal years. These funds are used to; support the existing access sites, further develop the Community Resource Networks (CRNs) and the content of their websites, develop enhancements to the CIMnet application used by the CRNs for their websites, provide Help Desk support and, to support the Canada Access Program Youth Initiative (CAPYI).

201 sites have been established in Winnipeg, 61 in Northern Manitoba and 338 in rural Manitoba. Sites are established in a variety of community organizations. The capacity of all public libraries has been significantly increased. Also of note is that 24 rural Canada Post Offices have been included in this initiative with the specific objective of making their EPOST services available throughout Manitoba. Funding support available to the access sites include funds for connectivity, assitive technology and small grants for local communities broadband initiatives.

Community access sites are organized into Community Resource Networks (CRN's) that jointly develop and host local websites. The Seniors Resource Network, for example, has developed a website-http://seniors.cimnet.ca that presents the best of seniors related information. This is the default homepage for the access sites in the 30 senior's resource centres throughout Manitoba. Sites in the Transcona Resource Network are linked to community information through http://transcona.cimnet.ca. Approximately 20 CRN's are currently under development. Many Northern communities are beginning to use public access and CIMnet applications to create virtual communities. The Hudson Bay Neighbours (http://hbn.cimnet.ca) and the Bayline Regional Roundtable (http://baylinerrt.cimnet.ca) are recent examples.

Out of the work being done through the Community Connections Initiative the youth development team (from Brandon University) has developed into a small Manitoba software development company (Function Four, Inc.) The on-line database used by the Winnipeg Volunteer Centre (www.contactmb.org.) is a CIMnet application as are all websites developed by the CRNs.

Technical and application support is provided to access sites by a Help Desk established by the Swan Valley Resource Network with support from Community Connections. This has since developed into a small Manitoba company (83 North, Inc.). A similar Francophone helpdesk has been developed in partnership with Réseau de ressources communautaires franco-manitobain (CDEM) Communities Connections has funded approximately 50 access sites in bilingual Manitoba municipalities. (Franco-Manitoba Resseau). The Help Desks will be expanded in 2003/2004 to provide service to Saskatchewan, Alberta, Nunavut and the North West Territories.

The CAP Youth Employment Initiative employees approximately 160 Youth (to age 29) with funding of approximately $1.0 M from various partners including; Community Connections, Industry Canada, MB Education, HRDC and, MB Intergovernmental Affairs. Youth support the operation of access sites and the CRN web sites.

Community Connections is also contributing to a youth inclusion program within the rural round table process. A recent conference Communities in Motion developed out the Rural Round Table process. Ongoing youth e-dialogues can be viewed at the conference website http://commotion.cimnet.ca .

Community Connections is currently working with Service Manitoba on the evaluation of this initiative. Anecdotal success stories can be found at the Community Connections newsletter site http://lux.ccimnet.ca .

BROADBAND

Since its creation in September 2001, the Broadband Project Office has been active on several fronts in terms of partnership development with the private sector and community based organizations in order to provide high speed internet/Broadband solutions to various regions of the Province where that service does not currently exist. In Manitoba there are 66 served communities and 286 unserved communities with 62 being First Nations communities. Examples of successful projects include the Churchill Community Network, commissioned in August of 2002 and the St. Pierre-Jolys project, commissioned in November of 2002. These community owned ISP models would be the first of their kind in Manitoba and serve as a model for use in other northern or remote communities within the province.

The Next Generation Provincial Data Network (PDN) was completed.

It is this Province's vision to utilize high speed Internet connectivity to secure all of those economic and social benefits available through the use of information and communications technologies for the benefit of all Manitobans.

The Manitoba Smart Network, through joint investment of $3.7 million Provincial and $4.5 million Federal respectively, is currently developing a regional Manitoba community network connecting the five rural centres of Brandon, Minnedosa, Neepawa, Carberry and Souris. By sharing the same technology and resources as their counterparts in larger centers, these communities will receive economic and social benefits without parallel.

As directed by the Community Economic Development Committee of Cabinet, the Broadband Initiative division of Energy, Science and Technology, in conjunction with Manitoba Education Research Learning Information Networks, has developed a business case to provide High-Speed Internet access to all Manitoba schools. High Speed in this case is defined at 2Mbps synchronous, the data processing rate needed for real-time video.

On January 22, 2003, Education and Youth Minister Ron Lemieux and Energy, Science and Technology Minister Tim Sale announced the introduction of the CyberSchools Manitoba Internet Portal for all educators and students in Manitoba public schools. CyberSchools Manitoba ("the Portal") is intended to provide a safe and secure environment for Manitoba students to develop their skills in using the Internet in order to communicate easily and effectively with others in the electronic age. The Portal is available at no charge to all K-S4 students, teachers, administrators and other school division staff. The communities of Brandon, Souris, Carberry, Neepawa and Minnedosa are all part of the "beta testing" phase of the project and, as such, will have the computer coordinators & some staff testing the "portal" in the next few weeks. Students in these communities will have access to the portal (email, calendar, web file storage, and web page).

Representatives from the Broadband Initiative division sit on the regional Broadband for Rural and Northern Development Program (BRAND) evaluation panel. The first round of recipients under the federal BRAND was announced in January 2003. The funds were allocated as part of the $105-million Broadband for Rural and Northern Development Pilot Program announced in September 2002. Successful applicants now use program allocations (up to $30k) to develop business plans which in turn, must be completed and submitted by May 22, 2003, to qualify for implementation funding. A call for proposals to compete for business plan development funding under the Program's second round was also announced in January 2003.

MANITOBA NETWORK FOR SCIENCE AND TECHNOLOGY (MINDSET)

In 2002/03 MindSet activities included support for a co-ordinator and involvement in a variety of year-round science and technology awareness activities. MindSet is actively involved with various programs including: Aventis Biotechnology Challenge; Digitized Student Technology Conference; Summer Institutes (e.g. Microsoft Teacher Mentorship, new media, biotechnology and agtech); MindSet Web-Site, Manitoba Science and Technology Achievement Event and support for various science fairs.

MANITOBA INNOVATIONS FUND (MIF)

Since 1998, MIF has approved $48.1 million in funding and provided a total of $27.6 million in funding to researchers for the purchase of equipment that enhances the province's research infrastructure. Funding is available for projects that coincide with Provincial priorities, including the development of a strategic partnership with the Canadian Foundation for Innovation (CFI). In 2002/03, 28 projects received $6.83 million in funding through the MIF. A total of $181 thousand was allocated to seven projects through the Regional Partnerships Program jointly funded by the Canadian Institutes for Health Research (CIHR). The remaining $6.65 million was used to fund 21 projects at the Universities of Manitoba and Winnipeg, TR Labs, Red River College and the St. Boniface Hospital Research Centre. This leveraged an additional $6.15 million in matching contributions from CFI in 2002/03.

Among the numerous projects funded in 2002/03, MIF supported Katherine Wittenberg's Centre for Agroecological Livestock Production Systems at the University of Manitoba. The infrastructure will support research in sustainable plant production systems and post-harvest technology as well as support systems into the growth of livestock production systems. The Province also provided funding to the Manitoba Breast Cancer Research and Diagnosis Centre. The Centre will conduct research on identification of biological markers for early detection of breast cancer. In addition the MIF provided funding to TRLabs for its Network of the Future. The creation of the wide-area networking laboratory will link researchers at all five TRLabs in western Canada and support collaboration among researchers in areas of content aware IP optical networks and the development of enabling optical networking devices.

HEALTH RESEARCH INITIATIVE (HRI)

HRI funding, totalling $3 million was provided to the five research centres in 2002/2003. The program funds were apportioned to each centre according to a formula that has been used consistently since the program's inception as a pilot project in 1996/97.

In 2000/01, R&D revenue and overhead costs for the five research centres was $61.36 million and $9.32 million, respectively. Based upon the HRI funding formula, total overhead support was projected at $8.04 million for 2002/03. With a program funding cap of $3.0 million, the allotments payable to each research centre were proportioned down to the total HRI funding appropriation. According to this rollout mechanism, payments to each HRI participant in 2002/03 were as follows:

Institution	Funding Allotment
CancerCare Manitoba	$ 278,209.66
Children's Hospital	$ 150,189.32
Health Sciences Centre	$ 454,270.94
St. Boniface General Hospital Research Centre	$ 665,980.77
University of Manitoba	$1,451,349.31
TOTAL:	**$3,000,000.00**

RIT surveyed the five centres during FY2002/03 as part of an effectiveness evaluation, requesting data on a number of key indicators. These indicators included:

- Research revenues from outside sources;
- Staff numbers;
- Student numbers;
- Start-up companies;
- Commercialization and licensing agreements signed; and
- Grant applications submitted and accepted

The survey results reflect actual results from 1998/99 to 2000/01, and projections for 2002/03 and 2002/03. Some of the key results included:

- Continued increases in outside funding received;
- Increased success rate in grant applications;
- A total of 320.8 staff positions created or projected from 1998/99 to 2002/03;
- 23 start-up companies projected in total for the five-year evaluation period; and
- A 185% increase in partnering activities projected from the beginning to the end of the evaluation period.

MANITOBA CENTRES OF EXCELLENCE

The national headquarters for the Intelligent Sensing for Innovative Structures (ISIS) network that conducts R&D on advanced composite materials and electronic sensors for construction engineering projects such as bridges and earthquake resistant buildings is located at the University of Manitoba. New projects are to be undertaken in sustainable forest management, the mathematics of information technology and complex systems, and arthritis.

During 2002/03 MCEF support totalling $410,000 was provided to the following projects and leveraged federal support at the 5:1 ratio:

- Canadian Genetic Diseases Network
- Micronet
- Institute for Robotics and Intelligent Systems
- Canadian Institute for Telecommunications Research
- ISIS Canada
- Sustainable Forest Management
- Canadian Arthritis Network
- Vaccines & Immunotherapeutics of Cancer & Chronic Viral Diseases (CANVAC)
- Canadian Stroke Network (CSN)

- Photonics
- Canadian Water Network
- Auto 21

Incubat

In July 2002, Incubat, a business incubator, was established at SmartPark through a joint venture between the University of Manitoba, Genesys Venture Inc. (GVI) and e-Stage Capital Inc. Incubat's objective is to provide critically needed business, management and financing experience to early stage companies in the life sciences and information communication technology sectors. The University of Manitoba will provide Incubat with new technology ventures through a university program called VentureBox and the SpringBoard Fund will provide initial financing. New local ventures will also be accepted from other independent sources of innovation. The Province of Manitoba is providing operating grants totaling $600,000 over three years to support the establishment of Incubat.

10–5(a) Manitoba Research, Innovation and Technology

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,262.1	22.00	1,437.4	(175.3)	
Total Other Expenditures	746.2		766.2	(20.0)	
Program Delivery:					
Manitoba Innovations Fund	6,834.1		7,000.0	(165.9)	
Research and Innovation Fund	782.6		1,100.0	(317.4)	1
Health Research Initiative	3,000.0		3,000.0	-	
Manitoba Centres of Excellence	410.0		410.0	-	
Total Expenditures	**13,035.0**	**22.00**	**13,713.6**	**(678.6)**	

1. Variance due to funding deferred from 2002/03 to 2003/04.

THE INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Energy Science and Technology. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

10-5(b) Industrial Technology Centre

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Expenditures	**750.0**		**750.0**	**-**	

AMORTIZATION OF CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates. Consistent with this policy, this sub-appropriation records the costs associated with the amortization of the Department's share of the total estimated costs of the Desktop Management Initiative and Enterprise System Management allocated to the Department. In the case of Desktop, based on units acquired by the Department as a percentage of total units acquired by the Province and, in the case of Enterprise System Management, by projected departmental used. A small amount is also included for the amortization of other departmental assets.

10-6(a) & (b) Amortization of Capital Assets

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
10-6a-1 Amortization of Expenses - Hardware & Transition	47.4		47.9	(0.5)	
10-6a-2 Amortization Expense - Enterprise Software	7.6		8.6	(1.0)	
10-6a-3 Enterprise Software Licenses	16.1		16.1	-	
10-6b Amortization Expense	6.2		6.7	(0.5)	
Total Expenditures	**77.3**		**79.3**	**(2.0)**	

APPROPRIATION 10
FINANCIAL AND ADMINISTRATION
ENERGY DEVELOPMENT INITIATIVE
MANITOBA RESEARCH, INNOVATION AND TECHNOLOGY
INDUSTRIAL TECHNOLOGY CENTRE
AMORTIZATION OF CAPITAL ASSETS

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO: - Energy, Science and Technology	15,814.5
2002/03 ESTIMATE	15,814.5

Appropriation 10
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
	10-1(c) Finance and Administration				
41.4	(1) Salaries and Employee Benefits	73.9	0.0	73.9	1
41.4	TOTAL 10-1	73.9	0.0	73.9	
	10-2(d) Energy Development Initiative				
756.6	(1) Salaries and Employee Benefits	714.9	566.3	148.6	
473.6	(2) Other Expenditures	497.6	378.9	118.7	2
1,230.2	TOTAL 10-2	1,212.5	945.2	267.3	
	10-5				
	(a) Manitoba Research, Innovation and Technology				
1,437.4	(1) Salaries and Employee Benefits	1,262.1	1,191.6	70.5	
766.2	(2) Other Expenditures	746.2	833.1	(86.9)	
	Program Delivery				
7,000.0	(3) Manitoba Innovations Fund	6,834.1	6,587.2	246.9	
1,100.0	(4) Research and Innovation Fund	782.6	409.5	373.1	3
3,000.0	(5) Health Research Initiative	3,000.0	3,000.0	-	
410.0	(6) Manitoba Centres of Excellence Fund	410.0	410.0	-	
750.0	**(b) Industry Technology Centre**	750.0	750.0	-	
14,463.6	TOTAL 10-5	13,785.0	13,181.4	603.6	

Appropriation 10
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
	10-6 Amortization				
	(a) Desktop Services				
	(1) Amortization Expense-Hardware & Transition	47.4	69.2	(21.8)	
47.9		7.6	17.3	(9.7)	
8.6	(2) Amortization Expense - Enterprise Software	16.1	0.0	16.1	
16.1	(3) Enterprise Software Licenses				
6.7	(b) Amortization Expense	6.2	15.6	(9.4)	
79.3	TOTAL 10-6	77.3	102.1	(24.8)	
15,814.5	TOTAL FOR Appropriation 10	15,148.7	14,228.7	920.0	

1. The variance is a result of a position being over-filled during 2002/03 as in 2001/02 the position was vacant.
2. In 2002/03, staffing levels are higher. This resulted in higher project and general operating cots.
3. Grant expenditures are higher in 2002/03.

Appropriation 10
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 2003

	Actual/Adjusted Expenditures									
	1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
Appropriation	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**
Energy Development Initiative	5.00	419.8	5.00	405.7	5.00	396.9	11.00	890.6	9.44	1,212.5
Manitoba Research, Innovation and Technology*	4.44	6,333.8	16.92	15,267.2	17.78	14,239.9	17.97	13,234.3	21.32	13,858.9
Amortization		0.5		80.0		90.1		102.1		77.3
TOTAL	9.44	6,754.1	21.92	15,752.9	22.78	14,726.9	28.97	14,227.0	30.76	15,148.7

- Where possible, adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganization.
- *Includes Finance and Administration Services and the Industrial Technology Centre.

SECTION 4

CLIMATE CHANGE

FORMERLY
MAIN APPROPRIATION 12
(CONSERVATION)

ENERGY DEVELOPMENT INITIATIVE

CLIMATE CHANGE

The Climate Change Branch (CCB) was transferred in January 2001 and is responsible for federal-provincial coordination of climate change initiatives and work related to the United Nations Framework Convention on Climate Change and the Kyoto Protocol. CCB will work on all climate and energy related efforts of the Government as part of the Energy Development Initiative Division.

CCB works to achieve immediate greenhouse gas (ghg) emission reductions while seeking a better understanding of climate change risks, to better inform future decisions regarding climate change.

The Manitoba Climate Change Action Fund (MCCAF), a component of the Sustainable Development Innovations Fund, is administered by CCB and provides grants to support practical, Manitoba-based actions that respond to the issue of climate change and the reduction of ghg emissions.

ACTIVITIES/RESULTS

Enhanced public education and awareness through delivery of community-based programs by the Manitoba Climate Change Connection (CCC).
The Manitoba CCC is a collaborative community-based and stakeholder-led program funded by the MCCAF, Government of Canada and Manitoba Hydro. During the 2002/2003 fiscal year, the Connection's Steering Committee was expanded to reflect the program's increased outreach efforts. A series of community workshops were held across the province and a public inquiry service was offered during regular business hours. Numerous media inquiries were fielded and a public advertising campaign was conducted to compliment the Province's *"Take Action on Climate Change"* campaign. The *"Take Action"* campaign delivered media ads across the province and delivered information materials to citizens to encourage them to take action to reduce their ghg emissions from personal activities.

Represented Manitoba in national discussions regarding formulation of ghg mitigation policies and regulation, including the Kyoto Protocol.
CCB participated in working groups with officials from other provinces-territories and the federal government. Manitoba chaired the provincial-territorial caucus of officials from May to October 2002. Manitoba participated on the following working groups:

- Analysis & Modeling Group (co-chair),
- National Air Issues Coordinating Committee,
- Forestry Sinks,
- Credit Trading (Allocation and Burden Sharing),
- Impacts and Adaptation,
- Public Education and Outreach,
- International Issues, and
- Technology Development.

Published the *Province of Manitoba Climate Change Action Plan 2002*.
CCB coordinated the Government's response to the Climate Change Task Force (Axworthy) recommendations contained in the *Action Plan 2002* titled, *Kyoto and Beyond – A plan of action to meet and exceed Manitoba's Kyoto Targets*. The *Minister of Energy, Science and Technology released the Plan* on October 15, 2002, at the unveiling of the "solar wall" at the Manitoba Housing building on Smith Street in Winnipeg.

Implemented a ghg emission reduction plan for provincial government operations.
Several government departments are contributing to the implementation of a ghg emission reduction plan. These efforts build upon, and in some cases are a part of, the Sustainable Development Procurement Guidelines Organizational Action Plans required of departments by *The Sustainable Development Act*. A number of specific components of the ghg emission reduction plan have been implemented.

The MCCAF has provided partial funding for a demonstration of solar heating for a Manitoba Housing and Renewal Corporation building. Manitoba Transportation and Government Services (TGS) has recently completed a ghg inventory and energy use reduction assessment for government-owned buildings, an energy audit report on central power plant and campus area buildings, and a report on ghg emissions reduction strategies for Manitoba Government facilities. Manitoba Energy, Science and Technology and several other departments have worked with TGS Fleet Vehicles Agency to assess how their particular transportation needs could be met by using vehicles that consume less gasoline and emit fewer greenhouse gases. Fleet Vehicles Agency has purchased one hybrid gas/electric vehicle in addition to the two already operating within Manitoba Conservation. A Cabinet directive was issued in September 2002 that all departments are required to purchase ethanol-blended fuel where it is reasonably available. Fleet Vehicles Agency has provided information to assist drivers in finding stations that sell ethanol blended fuel in Manitoba. As well, to promote reductions in gasoline consumption and emissions, the Agency has identified an "Idle-Free Zone" at its main location. Signs are posted encouraging drivers, while they are parked in this zone, to shut off their engines rather than leave them idling. The Agency is working with its department's Property Management Division to have these signs posted at all government parking lots.

Promoted and administered the Manitoba Climate Change Action Fund.
In year three of this four-year program a significant increase in applications occurred. Forty applications for a total of $1,443,520.07 was requested by interested stakeholders, groups, communities and business (up from 59 applications for a combined total of $1,718282.50 requested in years I and II). $249,997.57 was approved in grants for a total leveraged project value from the program of $2.3 million.

Organized and promoted a Manitoba network of climate change researchers and stakeholders that will be integrated with the Prairie Adaptation Research Collaborative (PARC).

Through their work on the PARC Board of Directors, CCB successfully negotiated an agreement to establish a Manitoba-based research coordinator. The University of Winnipeg hosts this position and supports the work, which began in October 2002. Several local, regional and national networking meetings have been held, including meetings in Manitoba for researchers and stakeholders on the following topics:

- water,
- transportation and northern issues,
- forestry, and
- provincial priorities and research funding.

Lead interdepartmental/private sector/municipal outreach and coordination of climate change activities and liaised with national and provincial departments to conduct seminars on carbon sequestration.

CCB sponsored two major seminar-style conferences that were organized by the International Institute for Sustainable Development. The conferences addressed forestry and agricultural carbon sequestration (sinks) and Kyoto credit trading and market development. These events included participants from all sectors in Manitoba and drew upon invited guests from the federal government and leading national organizations and consulting experts.

Participated in analysis and modeling of economic impacts of climate change and conducted analysis of policy options.
Through the offices of the Manitoba Bureau of Statistics, Manitoba co-chaired the national effort to model economic impact scenarios of potential Kyoto Protocol implementation. Work has also begun on a collaborative regional and federal-provincial basis to assess economic costs being incurred from the harmful effects of global warming.

12-4(d) Climate Change

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	284.0	8.00	404.0	(120.0)	1
Total Other Expenditures	225.2		145.4	79.8	2
Grant Payments	1.0		14.3	(13.3)	
Total Expenditures	**510.2**	**8.00**	**563.7**	**(53.5)**	

1. The variance due to vacant positions in 2002/03.
2. The variance is due to expenditures related to the Kyoto Climate Change Agreement.

CLIMATE CHANGE

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO:	
- ENERGY, SCIENCE AND TECHNOLOGY	563.7
2002/03 ESTIMATE	563.7

Climate Change
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
	12-(d) Climate Change				
404.0	(1) Salaries & Employee Benefits	284.0	308.8	(24.8)	
145.4	(2) Other	225.2	145.4	79.8	1
14.3	(3) Grant Payments	1.0	14.3	(13.3)	
563.7	**TOTAL FOR 12-(d) CLIMATE CHANGE**	**510.2**	**468.5**	**41.7**	

1. The variance is due to the Kyoto Climate Change Agreement.

Climate Change
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 2003

	Actual/Adjusted Expenditures									
	1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
Appropriation	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**	**FTE**	**$**
OPERATING										
Climate Change									4.00	510.2
TOTAL									4.00	510.2

- Historical data not available for appropriations affected by reorganizations during the five years.

SECTION 5

MANITOBA EDUCATION, RESEARCH, LEARNING AND INFORMATION NETWORK (MERLIN)

FORMERLY
MAIN APPROPRIATION 16
(EDUCATION)

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS (MERLIN)

The Manitoba Education, Research and Learning Information Networks (Merlin), is a special operating agency of the Department of Energy Science and Technology. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

16-5(g) Manitoba Education, Research and Learning Information Networks (MERLIN)

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Expenditures	445.7		445.8	(0.1)	

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS (MERLIN)

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO: - ENERGY, SCIENCE AND TECHNOLOGY	445.8
2002/03 ESTIMATE	445.8

Manitoba Education, Research Learning Information Network (MERLIN)
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation	Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
445.8	16-5(g) Manitoba Education, Research Learning Information Network (MERLIN)	445.7	445.8	(0.1)	
445.8	**TOTAL FOR 16-5(g) Manitoba Education, Research Learning Information Network (MERLIN)**	**445.7**	**445.8**	**(0.1)**	

Manitoba Education, Research Learning Information Network (MERLIN)
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 2003

Appropriation	Actual/Adjusted Expenditures 1998-1999 FTE	$	1999-2000 FTE	$	2000-2001 FTE	$	2001-2002 FTE	$	2002-2003 FTE	$
OPERATING										
MERLIN		513.3		513.3		493.3		493.3		445.7
TOTAL		513.3		513.3		493.3		493.3		445.7

SECTION 6

MANITOBA HEALTH RESEARCH COUNCIL

FORMERLY
MAIN APPROPRIATION 21
(HEALTH)

MANTITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

21-2(g) Manitoba Health Research Council

Expenditures by Sub-Appropriation	Actual 2002/03 $	Estimate 2002/03 FTE	Estimate 2002/03 $	Variance Over (Under)	Expl. No.
Total Expenditures	1,752.6		1,752.6	-	

Reconciliation Statements

EXPENDITURE DETAILS	2002/03 ESTIMATES
2002/03 MAIN ESTIMATES	
ALLOCATION OF FUNDS TO: - ENERGY, SCIENCE AND TECHNOLOGY	1,752.6
2002/03 ESTIMATE	1,752.6

Manitoba Health Research Council
Expenditure Summary
For Fiscal Year Ended March 31, 2003 (with comparative figures for the previous year)

Estimate 2002/03 $	Appropriation		Actual 2002/03 $	Actual 2001/02 $	Increase (Decrease) $	Explanation Number
1,752.6	21-2(g)	Manitoba Health Research Council	1,752.6	1,757.6	(5.0)	
	TOTAL FOR 21-2(g)					
1,752.6		Manitoba Health Research Council	1,752.6	1,757.6	**(5.0)**	

Manitoba Health Research Council
Five-Year Expenditure and Staffing Summary by Appropriation ($000s)
For Five Years Ended March 31, 2003

	Actual/Adjusted Expenditures									
	1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
Appropriation	FTE	$	FTE	$	FTE	$	FTE	$	FTE	$
OPERATING										
Manitoba Health Research Council		1,752.6		1,752.6		1,752.6		1,757.6		1,752.6
TOTAL		1,752.6		1,752.6		1,752.6		1,757.6		1,752.6

APPENDIX A

ASSOCIATED AGENCIES, BOARDS, COMMISSIONS and COUNCILS

THE INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Energy Science and Technology. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS (MERLIN)

The Manitoba Education, Research and Learning Information Networks (Merlin), is a special operating agency of the Department of Energy Science and Technology. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

MANTITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

APPENDIX B

FINANCIAL INFORMATION

Energy, Science and Technology
Summary of Business Assistance
2002/2003 Fiscal Year

ASSOCIATION CONTRIBUTIONS	24,200.00
MANITOBA CENTRES OF EXCELLENCE FUND	410,000.00
MANITOBA HEALTH RESEARCH INITIATIVE	3,000,000.00
MANITOBA INNOVATIONS FUND	6,834,104.00
RESEARCH AND INNOVATION FUND	607,500.00
TRANSFER PAYMENTS	1,397,307.02
	$ 12,273,111.02

APPENDIX C

FINANCIAL INFORMATION

Energy, Science and Technology
List of Business Assistance
2002/2003 Fiscal Year

ASSOCIATION CONTRIBUTIONS	
Manitoba Customer Contact Association	24,200.00
	$ 24,200.00
MANITOBA CENTRES OF EXCELLENCE FUND	
University of Manitoba, Centres of Excellence Fund	410,000.00
	$ 410,000.00
MANITOBA HEALTH RESEARCH INITIATIVE	
CancerCare Manitoba	337,642.36
Children's Hospital Foundation of Manitoba Inc	133,764.11
Health Sciences Centre	422,486.76
St Boniface General Hospital	815,080.97
University of Manitoba	1,291,025.80
	$ 3,000,000.00
MANITOBA INNOVATIONS FUND	
Manitoba Health Research Council	181,833.00
Red River Community College	275,394.00
TR Lab	368,123.00
University of Manitoba	6,008,754.00
	$ 6,834,104.00
RESEARCH AND INNOVATION FUND	
Incubat Services Inc.	100,000.00
SmartCentre	27,500.00
TR Labs	480,000.00
	$ 607,500.00
TRANSFER PAYMENTS	
Economic Innovation and Technology Council	201,607.02
MERLIN	445,70.00
Industrial Technology Centre	750,000.00
	$ $1,397,307.02
TOTAL	**$ 12,273,111.02**

Includes 10% post-consumer waste